

A NEW SPECIES OF *CYMOPHORA* (ASTERACEAE, HELIANTHEAE) FROM
GUERRERO, MEXICO

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ABSTRACT

A new species of *Cymophora*, *C. luckowana* B. Turner, is described from central Guerrero, México. It is closely related to *C. pringlei* but is readily distinguished by its larger, coarsely serrate leaves, eglandular stems, fewer florets per head and appressed strigose achenes. An illustration of the new taxon is provided along with a key and map to help distinguish among the four presently known species.

KEY WORDS: *Cymophora*, Asteraceae, Heliantheae, México

Routine identification of Mexican Asteraceae has revealed the present novelty.

Cymophora luckowana B. Turner, *sp. nov.* TYPE: MEXICO. Guerrero: "Canyon 1.5 km E of Acahuizotla. Tropical forest next to river." 28 Sep 1987, *Melissa Luckow 3568* (HOLOTYPE: TEX!; Isotypes: BH, MEXU, NY).

Cymophorae pringlei B. Robinson similis sed trichomatibus caulium eglandulosis (vs. glandulosis), foliorum laminis deltoideis (vs. ovatis) multo majoribusque marginibus grosse dentatis (vs. subser-ratis vel integris), flosculis paucioribus (5-7 vs. 10-40) in quoque capitulo, et acheniis strigosis (vs. dense villosis) differt.

Annual stiffly erect herbs ca. 60 cm high. Stems sparsely pilose with multiseptate hairs. Leaves on primary shoots opposite, 10-15 cm long, 7-10 cm wide; petioles mostly 1.5-5.0 cm long, sparsely pubescent like the stems; blades decidedly deltoid, glabrous or nearly so, with 3 principal nerves arising from somewhat above the base, tapering upon the petioles, the margins coarsely

and irregularly dentate, the basalmost dentation usually extended into a pronounced, often deflexed, lobe. Capitulescence an open subpaniculate cyme ca. 15 cm high, 25 cm wide, the ultimate peduncles mostly 5-10 mm long, moderately to densely appressed pilose with eglandular multiseptate trichomes. Involucres cylindric, 3.0-3.5 mm long, 2.2-2.5 mm wide (pressed), the bracts biseriate, subequal, the outer series elliptic-lanceolate, 4-5 in number, glabrous or nearly so. Receptacle convex, paleate, the pales broadly lanceolate, scarious, ca. as long as the bracts. Florets 5-7 per head, the 1-2 outermost florets with perfect but somewhat zygomorphic corollas, the inner florets with more or less regular corollas with glandular pubescent tubes ca. 1 mm long, throats ca. 2 mm long, and lobes ca. 0.5 mm long. Achenes 4-5 sided, narrowly obpyramidal, epappose, ca. 2 mm long, 0.8 mm wide, black striate, appressed strigose.

Cymophora luckowana is closely related to *C. pringlei* but is readily distinguished by the characters noted in the Latin diagnosis. It might also be compared with *C. hintonii* Turner & Powell from Jalisco and Michoacán (cf. distribution map, Fig. 2). These several taxa and that of *C. venezuelensis* (Aristig. & Cuatr.) Canne can be distinguished by the characters given in the following couplets.

1. Ray or peripheral florets pistillate; Venezuela. *C. venezuelensis*
1. Ray or peripheral florets perfect; México. (2)
 2. Achenes appressed strigose; leaf blades deltoid, coarsely dentate with basal flanges; stems without glandular trichomes; central Guerrero. *C. luckowana*
 2. Achenes, when pubescent, pilose; leaf blades ovate to flabellate, serrate to subentire, without basal flanges; stems to some degree with glandular trichomes. (3)
3. Florets 8-10 per head; leaf blades flabellate, 4-5 cm wide; Jalisco and Michoacán. *C. hintonii*
3. Florets 10-40 per head; leaf blades ovate, 1.0-3.5 cm wide; Jalisco, Michoacán, and Guerrero. *C. pringlei*

It should be noted that Turner & Powell (1977) positioned all of these species in *Cymophora*, but Keil, Luckow, & Pinkava (1987) would position them in *Tridax*, primarily on the grounds that both genera appear to have base numbers, at least in part, of $x=9$. I take the view that *Cymophora* is sufficiently morphologically removed from *Tridax* so as to be recognized as distinct regardless of its base number. Indeed, it appears to stand somewhere

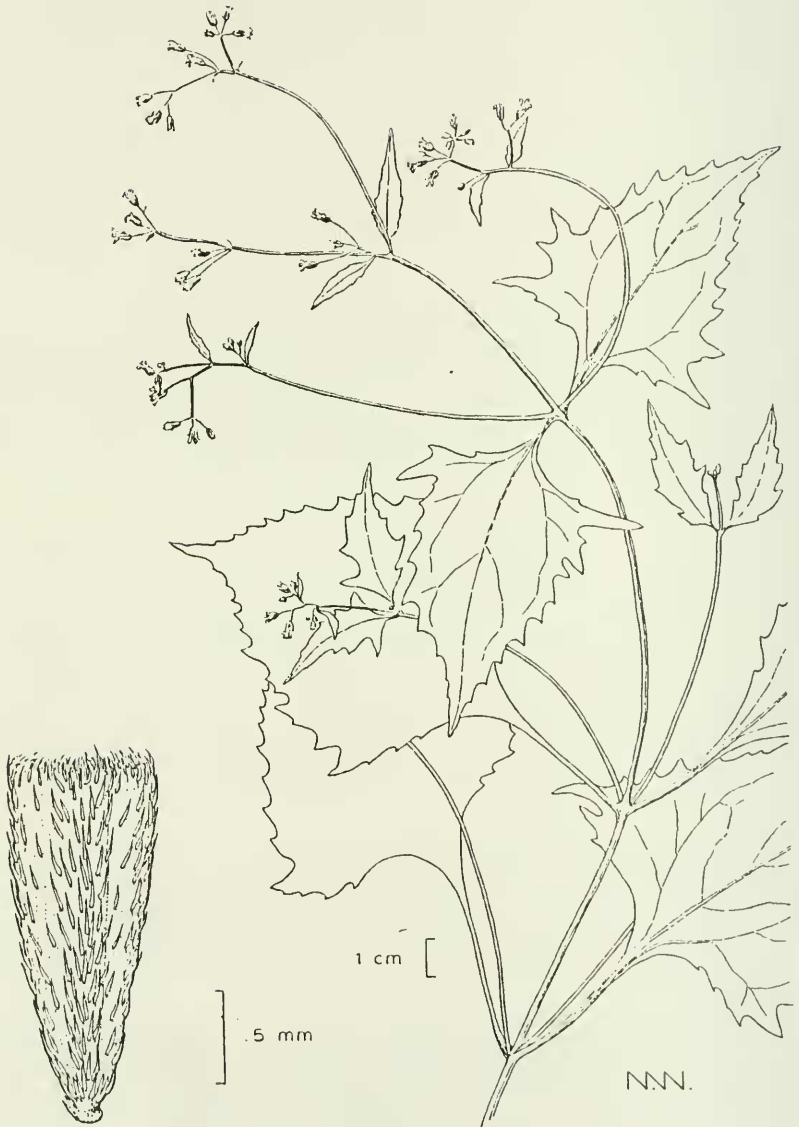


Fig. 1. *Cymophora luckowana*, from holotype.



Fig. 2 Distribution of *Cymophora hintonii* (open triangles), *C. pringlei* (closed circles), and *C. luckowana* (open circle).

between *Sabazia*, *Gahnsoga*, and *Tridax*, but not clearly referable to any of these, as noted by Turner, Powell, & Watson (1973). Generic relationships in the subtribe Galinsoginae are in much need of critical re-evaluation, as noted by Turner (1990, and references therein). Dr. José Panero is currently working on this complex using DNA sequence data, which might help resolve some of the more intractable problems within the group.

ACKNOWLEDGMENTS

I am grateful to Guy Nesom and Mahinda Martínez for reviewing the manuscript.

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